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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/468,042	12/21/1999	REINER LUDWIG	34645-00489U	3150

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EXAMINER

BAKER, STEPHEN M

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 03/17/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/468,042

Applicant(s)

LUDWIG ET AL.

Examiner

Stephen M. Baker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6-15 and 17-25 is/are rejected.
- 7) ☒ Claim(s) 4,5 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3, 6-15, 17-21, 24 and 25 have been considered but are moot in view of the new ground of rejection.

This Office action replaces the previous non-final rejection (paper #12) and restarts the period for response, as the previous non-final rejection was inadvertently based on an unusable reference (Roobol *et al*, U.S. Patent No. 6,301,479, which was inadvertently cited as Roobol *et al*, U.S. Patent No. 6,307,867).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1, 3, 6-15 and 17-25 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent No. 5,862,452 to Cudak *et al* (Cudak hereafter).

Cudak discloses a system and protocol for peer-to-peer communications between 'peripheral devices', such as PCs and shared printers, in a wireless home network. In Cudak's system, an asynchronous communication mode is used to carry PPP/IP packets generated in accordance with PPP over IP protocols, the PPP/IP packets being generated in a process of "providing a data flow at (a) first protocol layer

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as data packets of the first protocol layer". The formation of PPP/IP packet segments, called 'transmission blocks' in Cudak's system, involves "releasing data at the first protocol layer to the second protocol layer in the transmitter" and "dividing the data of the first protocol layer into consecutive data packets of the second protocol layer by generating a sequence of data packets with sequence numbers, wherein a data packet of the second protocol layer contains data from only one data packet of the first protocol layer". Each of Cudak's transmission blocks is provided with a 1-bit sub-address sequence number (SBSN), and each of Cudak's blocks serves as a "data packet of the second protocol layer", with the last block having a payload that is partially stuffed with padding bits when the last PPP/IP packet segment does not otherwise fill the 96-byte payload region of the last transmission block (col. 31, lines 40+, Table 3, and col. 33, lines 14-57). Transmission of the blocks in Cudak's system is thus "transmitting the data packets of the second protocol layer to the receiver via the communication network". Cudak's asynchronous mode uses stop-and-wait ARQ and an unlimited number of retries, with discarding of errored blocks and reassembly of error-free blocks into the original PPP/IP packet based on the SBSNs, thereby serving for "sorting received packets of the second protocol layer at the receiver according to the sequence of packets" and "allocating received data packets of the second protocol layer to data packets of the first protocol layer, in the second protocol layer". Cudak's packet segmentation/reassembly and NAT address translations are transparent to the PPP/IP layers of the receiving peripheral device and, accordingly, Cudak's reception operation involves "upon a data packet of the first protocol layer being completely generated from

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a group of data packets of the second layer allocated to the first protocol layer, examining said completely generated data packet for an association to a data flow, and releasing said completely generated data packet to the first protocol layer”.

Regarding claim 6, Cudak's packet “separators” are provided by block assignments, synchronization words and block acknowledgements (col. 8, lines 17-24).

Regarding claim 8, Cudak's lower layer protocol is a “radio link protocol” if only because it is a wireless protocol.

Regarding claims 9 and 25, Cudak's PPP/IP packet reassembly of course requires that received segments be “stored in a buffer of the receiver”.

Regarding claim 10, Cudak's PPP/IP packet reassembly of course requires reception of all PPP/IP segments.

Regarding claim 11, Cudak's segmentation involves an “encapsulation process” and upper layer processing of the PPP/IP packets in the receiver of course involves “identifying packets of additional protocol layers”.

Regarding claims 12-15, Cudak's PPP/IP headers provide “at least one control field comprising control data”, and indicate “source addresses, destination addresses and port numbers”.

Regarding claims 18 and 19, in Cudak's system, the packets of the “first protocol layer” are both IP datagrams and PPP frames, and the packets of the “second protocol layer” are (segmented) PPP frames and are, furthermore, packets of a “radio link protocol” if only because Cudak's link is wireless.

Regarding claims 23 and 24, TCP and UDP reside at the top of the protocol stacks for the peripherals in Cudak's system (see Fig. 9).

Allowable Subject Matter

4. Claims 4, 5 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Baker whose telephone number is (703) 305-9681. The examiner can normally be reached on Monday-Friday (11:00 AM - 7:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stephen M. Baker
Primary Examiner
Art Unit 2133

smb